

Claims

1. A cooking appliance (10)
comprising a cooking chamber (11),
having one or more heating elements (12), and
also comprising a water supply (30) which has at least one
water outlet (33) and which is fed by an external water
supply source (40),
characterized
in that one or more intermediate water storage reservoirs
(45) having a predetermined interior volume (46) that is
adapted to be filled with water are provided in the water
supply (30),
in that the intermediate water storage reservoir or
reservoirs (45) is fed by the external water supply source
(40),
in that the interior volume (46) of the intermediate water
storage reservoir or reservoirs (45) is adapted to be
intermittently blocked in regard to the filling process and
intermittently blocked in regard to the emptying process,
and
in that the water from the interior volume (46) of the
intermediate water storage reservoir or reservoirs (45) is
adapted to be emptied into the cooking chamber (11) via the
water outlet or the water outlets (33) for the purposes of
generating steam.
2. A cooking appliance in accordance with Claim 1,
characterized
in that there is provided a control or regulating device
(50) which initiates periodic or clocked emptying of the
interior volume (46).
3. A cooking appliance in accordance with Claim 1 or 2,
characterized
in that the intermediate water storage reservoir (45) is in
the form of a swept cylinder whose interior volume (46) is
adapted to be emptied by a piston (48).

4. A cooking appliance in accordance with Claim 1, 2 or 3, characterized in that the intermediate water storage reservoir (45) is adapted to be intermittently blocked in regard to the filling process and intermittently blocked in regard to the emptying process by means of a multi-port distributing valve (47).
5. A cooking appliance in accordance with Claim 4, characterized in that the multi-port distributing valve (47) is a 3/2-port distributing valve which is controlled electrically by the control and regulating device (50).
6. A cooking appliance in accordance with any of the preceding Claims, characterized in that the process of emptying the interior volume (46) of the intermediate water storage reservoir (45) is realized by a piston (48) which periodically discharges the water in a swept cylinder.
7. A cooking appliance in accordance with Claim 6, characterized in that the piston (48) of the swept cylinder is equipped with a spring (49) in order to push the water into the cooking chamber (11) when the cylinder is opened at the cooking chamber side.
8. A cooking appliance in accordance with any of the preceding Claims, characterized in that the rate of flow for the generation of the steam is adapted to be varied by the control and regulating device (50) by means of a change in timing of the clock rate for the emptying mechanism of the interior volume (46).
9. A cooking appliance in accordance with any of the preceding Claims,

characterized
in that the intermediate water storage reservoir (45) is connected by a hose-like water supply pipe (32) to the cooking chamber (11) and a pre-determined lay of the hose converts the periodically varying rate of flow into a continuous rate of flow.

10. A cooking appliance in accordance with any of the preceding Claims,

characterized
in that there is provided a sensor (34) which monitors the emptying process, and in particular, the displacement of the piston (48).

11. A cooking appliance in accordance with any of the preceding Claims,

characterized
in that the water supply (30) comprises at least two water supply pipes (30a, 30b) which run in parallel in sections thereof, and
in that each of the water supply pipes (30a, 30b) has one or more intermediate water storage reservoirs (45a, 45b) having a respective predetermined interior volume that is adapted to be filled with water (46a, 46b).

12. A cooking appliance in accordance with Claim 11,

characterized
in that respective intermediate water storage reservoirs (45a, 45b) of the two water supply pipes (30a, 30b) are combined with one another in such a manner that they form a common intermediate water storage reservoir (45), whereby its interior accommodates the two interior volumes (46a, 46b) which are separated by the piston (48) that discharges the water in such a manner that the movement of the piston (48) simultaneously leads to an emptying of the interior volume (46a, 46b) of the one intermediate water storage reservoir (45a, 45b) and to the filling of the other associated interior volume (46a, 46b) of the other intermediate water storage reservoir (45b, 45a).

13. A cooking appliance in accordance with any of the preceding Claims,

characterized

in that the intermediate water storage reservoir or reservoirs (45, 45a, 45b) are adapted to be blocked by means of a plurality of two/two-port distributing valves (47a, 47b, 47c, 47d) in alternating manner in regard to the filling process and in regard to the emptying process.

Translation of the drawings

Figure 2

Eingang = inlet

Ausgang = outlet